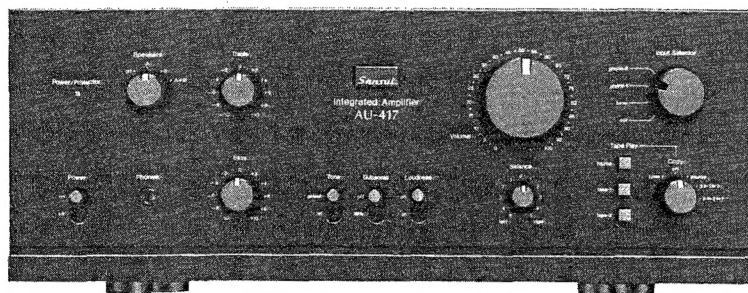


# SERVICE MANUAL

## INTEGRATED STEREO AMPLIFIER

# SANSUI AU-417



### SPECIFICATIONS

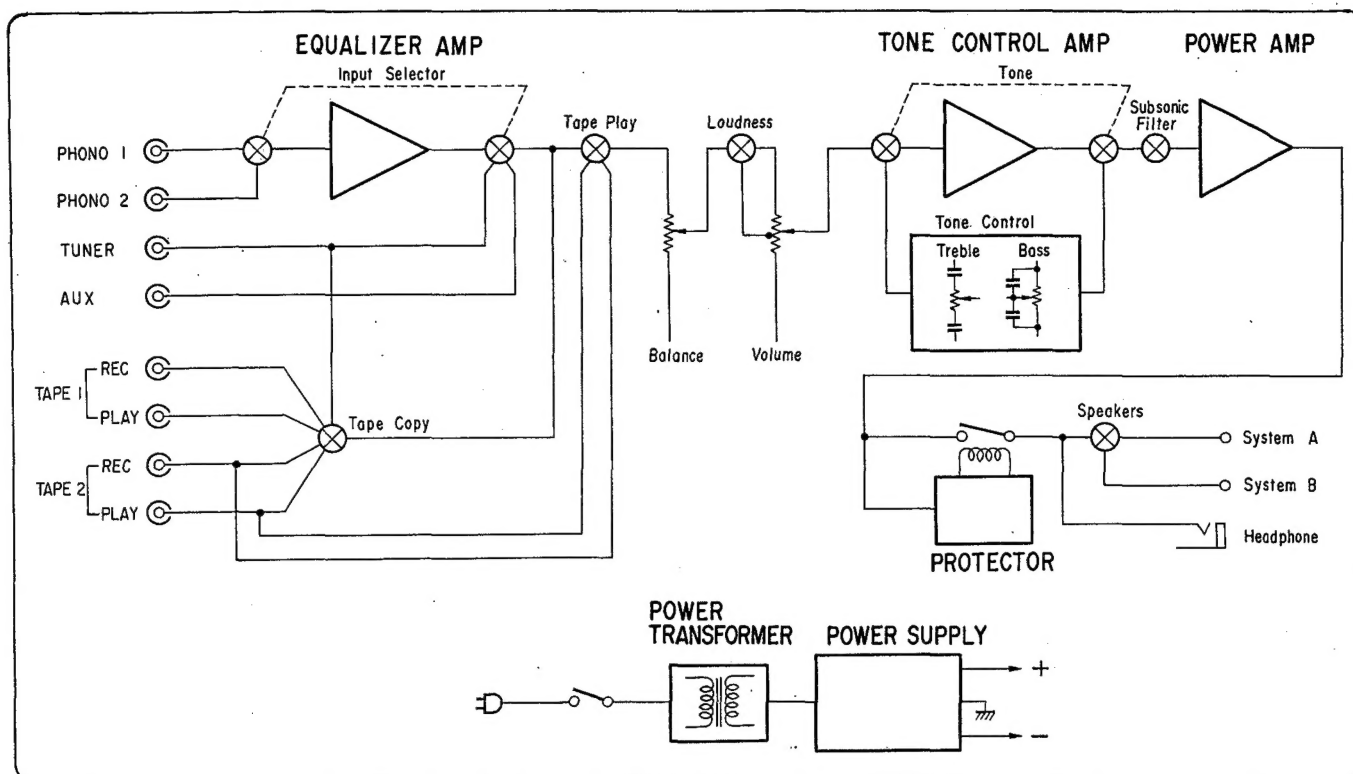
<b>Power output</b>	Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.02 % total harmonic distortion 65 watts per channel into 8 ohms
<b>Load impedance</b>	8 ohms
<b>Total harmonic distortion</b>	less than 0.02 % at or below rated min. RMS power output
<b>Intermodulation distortion (70 Hz : 7 kHz = 4:1 SMPTE method)</b>	less than 0.02 % at or below rated min. RMS power output
<b>Frequency response (at 1 watt)</b>	5 to 100,000 Hz +0 dB -3 dB
<b>Damping factor (1 kHz, both channels driven)</b>	60 into 8 ohms
<b>RIAA curve deviation (PHONO, 20 Hz to 20 kHz)</b>	+0.2 dB, -0.2 dB
<b>Input sensitivity and impedance (1 kHz, for rated power output)</b>	PHONO 2.5 mV/47 kilohms (Max. input capability; 300 mV at 1 kHz, less than 0.01 % total harmonic distortion)
<b>AUX, TUNER, TAPE PLAY</b>	150 mV/47 kilohms
<b>Output level and impedance (1,000 Hz)</b>	TAPE REC (pin jack). 150 mV into 47 kilohms/600 ohms
<b>Channel separation (1 kHz, at rated power output)</b>	PHONO 60 dB AUX, TUNER, TAPE PLAY 65 dB
<b>Hum and noise (short-circuit, A-network)</b>	PHONO 80 dB AUX, TUNER, TAPE PLAY 100 dB
<b>Controls</b>	BASS ±10 dB (50 Hz) TREBLE ±10 dB (15 kHz) SUBSONIC -3 dB (16 Hz), 6 dB/oct LOUDNESS (VOLUME control: -30 dB position) 9 dB at 50 Hz 7 dB at 10 kHz
<b>Power requirements</b>	Power voltage 100, 120, 220, 240 V (50/60 Hz) For U.S.A. & Canada 120 V (60 Hz)
<b>Power consumption</b>	Maximum consumption 300 watts Rated consumption 200 watts 240 VA
<b>Dimensions</b>	430 mm (16-15/16") W 168 mm (6-5/8") H 395 mm (15-9/16") D
<b>Weight</b>	12.2 kg (26.9 lbs) net 14.3 kg (31.5 lbs) packed

\* Design and specifications subject to changes without notice for improvements.

**Sansui**

SANSUI ELECTRIC CO., LTD.

## 1. BLOCK DIAGRAM



## 2. ADJUSTMENTS

### 2-1. Driver Circuit Board Adjustments (See the picture of top view on page 7.)

Note: 1. Master Volume . . . . . Minimum  
2. Room Temperature . . . . . 18°C ~ 28°C

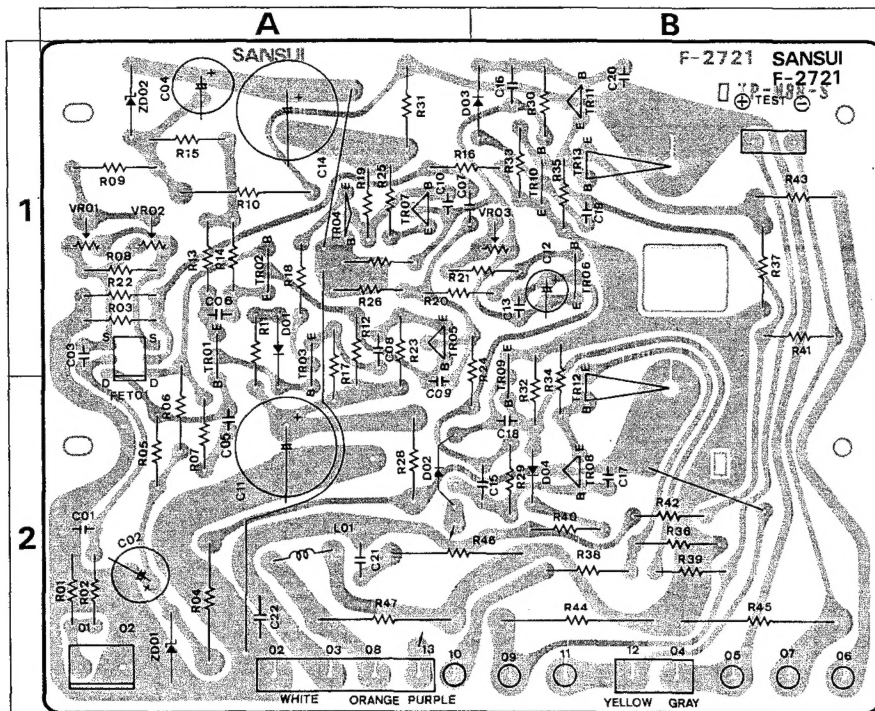
3. For adjustment, run the unit for more than 3 minutes after the power is switched on.

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	DC 0V L-CH	DC Volt Meter	Speaker Terminal	F-2721 VR01	DC 0V $\pm$ 5 mV	By turning VR03 counterclockwise, the bias current is decreased gradually.
2.	DC 0V R-CH	Same as above	Same as above	F-2722 VR01	DC 0V $\pm$ 5 mV	
3.	Bias Current L-CH	Same as above	TP Terminal (+) (–) of F-2721	F-2721 VR03	DC 20 mV $\pm$ 1 mV	
4.	Bias Current R-CH	Same as above	TP Terminal (+) (–) of F-2722	F-2722 VR03	DC 20 mV $\pm$ 1 mV	



## 3-3. F-2721 L-ch Driver Amp Circuit Board (Stock No. 7572111)

Conductor Side

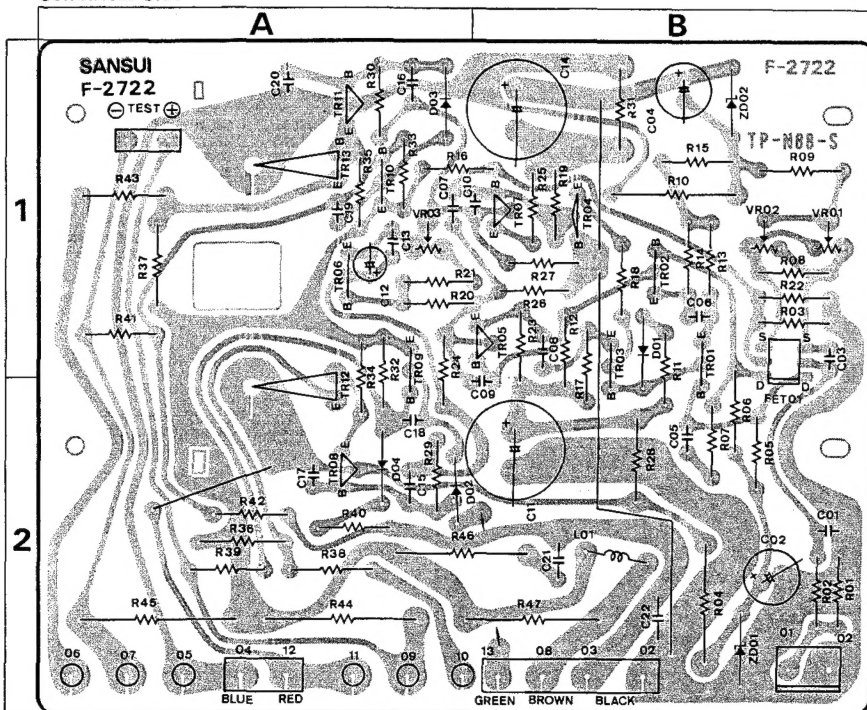


## Parts List

Parts No.	Stock No.	Description	Position
●Transistors			
TR01	0306290, 1	2SC1400 (1) E, U	1A
TR02	0306290, 1	2SC1400 (1) E, U	1A
TR03	0300890, 1	2SA750 (3) E, U	1A
TR05	0300791, 2	2SA899 B, V	1A
TR06	0305951, 2	2SC945 Q, P	1B
TR07	0306401, 2	2SC1904 B, V	1A, 2B
TR09	0305951, 2	2SC945 Q, P	1B, 2B
TR12	0308441 ~ 3	2SD382 M, L, K	1B, 2B
TR13	0303271 ~ 3	2SB537 M, L, K	1B
●FET			
FET01	0370311, 2	2SK129 L, M	1, 2A
●Diode			
D 01, 02	0311160	1S2473D	1A, 2A
D 04	0311160	1S2473D	2B
●Zener Diodes			
ZD01, 02	0316060	EQA01-22R	1A, 2A
C			
C 01	0621101	100pF 50V P.C.	2A
C 05	0620331	330pF 50V P.C.	2A
C 07	0669505	5pF 50V C.C.	1A, B
R			
R 04	0212272	2.7kΩ 2W N.I.R.	2A
R 09	0200392	3.9kΩ 1/2W N.I.R.	1A
R 10	0212272	2.7kΩ 2W N.I.R.	1A
R 17, 19	0210122	1.2kΩ 1/2W N.I.R.	1A
R 23, 25	0191151	150Ω 1/4W F.R.	1A
R 28, 31	0210330	33Ω 1/2W N.I.R.	1A
R 36, 37	0210221	220Ω 1/2W N.I.R.	2B, 1B
R 38, 43	0210479	4.7Ω 1/2W N.I.R.	2B, 1B
R 44, 45	0135338	0.33Ω 5W C.e.R.	2B
R 46	0212100	10Ω 2W N.I.R.	2A, B
R 47	0212229	2.2Ω 2W N.I.R.	2A
L			
L 01	4210290	1.5μH RF Coil	2A
VR01			
VR01	1033570	100Ω (B) DC 0V	1A
VR03			
VR03	1035310	1kΩ (B) Bias Current	1B
		Adjust VR	

## 3-4. F-2722 R-ch Driver Amp Circuit Board (Stock No. 7572121)

Conductor Side



## Parts List

Parts No.	Stock No.	Description	Position
●Transistors			
TR01, 02	0306290, 1	2SC1400 (1) E, U	1B
TR03	0300890, 1	2SA750 (3) E, U	1B
TR05	0300791, 2	2SA899 B, V	1B
TR06	0305951, 2	2SC945 Q, P	1A
TR07	0306401, 2	2SC1904 B, V	1B, 2A
TR09	0305951, 2	2SC945 Q, P	1A, 2A
TR12	0308441 ~ 3	2SD382 M, L, K	2A
TR13	0303271 ~ 3	2SB537 M, L, K	1A
●FET			
FET01	0370311, 2	2SK129 L, M	1B
●Diodes			
D 01, 02	0311160	1S2473D	1B, 2A
D 04	0311160	1S2473D	2A
●Zener Diodes			
ZD01, 02	0316060	EQA01-22R	2B, 1B
C			
C 01	0621101	100pF 50V P.C.	2B
C 05	0620331	330pF 50V P.C.	2B
C 07	0669505	5pF 50V C.C.	1A
R			
R 04	0212272	2.7kΩ 2W N.I.R.	2B
R 09	0200392	3.9kΩ 1/2W N.I.R.	1B
R 10	0212272	2.7kΩ 2W N.I.R.	1B
R 17, 19	0210122	1.2kΩ 1/2W N.I.R.	1, 2B, 1B
R 23, 25	0191151	150Ω 1/4W F.R.	1B
R 28, 31	0210330	33Ω 1/2W N.I.R.	2B, 1B
R 36, 37	0210221	220Ω 1/2W N.I.R.	2A, 1A
R 38, 43	0210479	4.7Ω 1/2W N.I.R.	2A, 1A
R 44, 45	0135338	0.33Ω 5W C.e.R.	2A
R 46	0212100	10Ω 2W N.I.R.	2A, B
R 47	0212229	2.2Ω 2W N.I.R.	2B
L			
L 01	4210290	1.5μH RF Coil	2B
VR01			
VR01	1033570	100Ω (B) DC 0V	1B
VR03			
VR03	1035310	1kΩ (B) Bias Current	1A
		Adjust VR	

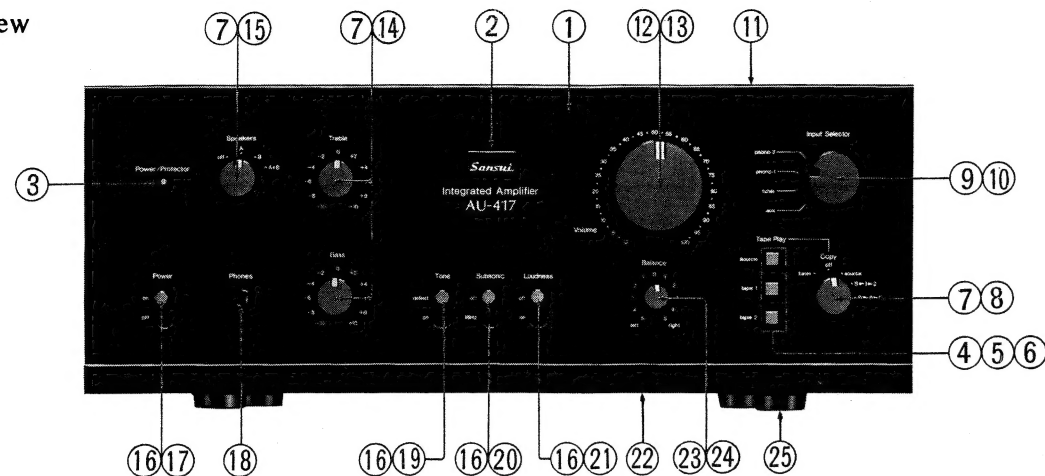


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## 5. OTHER PARTS

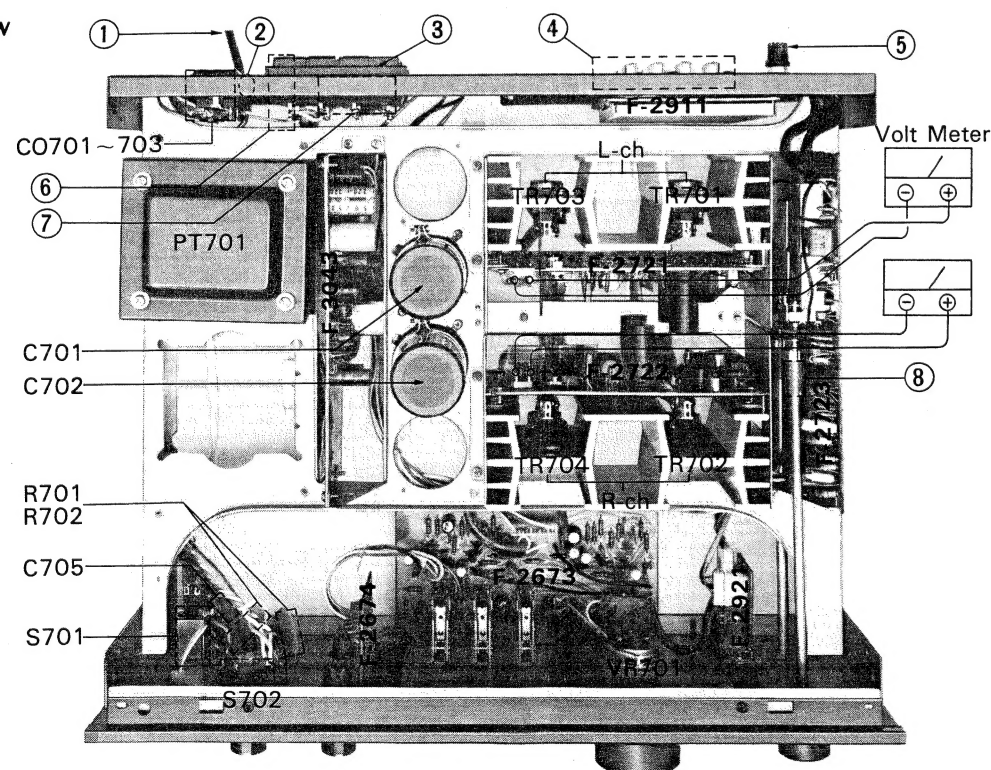
5-1. Front View



Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	7008270	Front Panel Ass'y	10	1190420	Rotary Switch, Input Selector	19	1171150	Lever Switch, tone
2	5336600	Sansui Badge	11	5006821	Bonnet	20	1171120	Lever Switch, subsonic filter
3	0319120	LED	12	5318910	Knob, Volume	21	1171120	Lever Switch, loudness
4	5326620	Knob, push switch	13	1011180	150k $\Omega$ x 2 Volume	22	5059170	Bottom Plate
5	5286721	Knob Guide, Push Switch	14	1015360, 1	100k $\Omega$ (C) x 2 Treble, Bass Volume	23	5318940	Knob, balance volume
6	6906480	Spring, push switch	15	1101470, 1	Rotary Switch, speakers	24	1015340, 1	250k $\Omega$ (MN) x 2 Balance Volume
7	5318930	Knob, tape copy, speakers, treble, bass	16	5326612	Knob, lever switch	25	5507070	Leg
8	1190410	Rotary Switch, tape copy	17	1171630	Lever Switch, power			
9	5318920	Knob, selector	18	2430290	Head Phone Jack Socket			

5-2. Top View

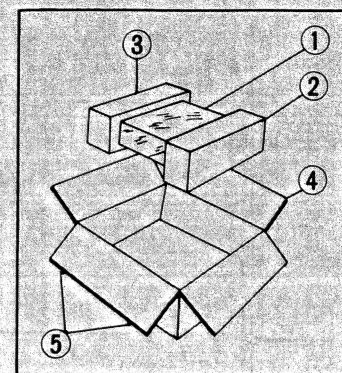


Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	3800470	Power Cord	7	2410091	Voltage Selector, plug	R 701, 702	0202221	220 $\Omega$ 2W N.I.R.
2	3910490	Strain Relief	8	2410830	Voltage Selector, socket	PT 701	4002900	Power Transformer
3	2290190	Speaker Terminal		6046041	Shaft Joint	VR701	1011180, 1	150k $\Omega$ x 2 Volume
4	2200620	4P Input Terminal (PHONO-1, 2)	TR 701, 702	0306760, 1	2SC2580NLB C, Y	S 701	1172000	Lever Switch, power
	2200580	4P Input Terminal (TUNER AUX) (TAPE-1, 2)	TR 703, 704	0301110, 1	2SA1105NLB O, Y	S 702	1101470, 1	Rotary Switch, speakers
5	2230190	Ground Terminal	C 701, 702	0559385	10000 $\mu$ F 56V E.C.	CO701-703	2450070	AC Outlet
6	2300060	Power Fuse Holder	C 705	0659801	0.01 $\mu$ F 150V C.C.			

## 6. PACKING LIST

Parts No.	Stock No.	Description
1	9116790	Vinyl Cover
2	9028030	Styrofoam Packing (Right Side)
3	9028021	Styrofoam Packing (Left Side)
4	9001800	Carton Case
5	5996080	Curl Stopper



## MEMO

## 7. ACCESSORY PARTS LIST

Stock No.	Description
9204510	Operating Instructions
9238160	Schematic Diagram
5396720	Rack Mounting Adaptor (each)

**Sansui**

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